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Eurasian Arctic abyssal waters are warming

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In the past decades, not only the upper water layers, but also the deepest layers of the Arctic Ocean have been warming. Observations show that the rate of warming varies markedly in the different basins with the fastest warming in the deep Greenland Sea (ca. 0.11° C per decade) and the Eurasian Basin featuring an average rate of ca. 0.01° C per decade. While the warming in the Greenland Sea is attributed to ongoing export of relatively warmer deep waters from the Arctic Ocean in combination with the halt of deep convection, the reason of Eurasian Basin deep warming is less clear. We discuss possible causes such as changes in the abyssal ventilation through slope convection, advection from other basins and/or geothermal heating through various sources.